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HISTORY OF GARDEN VEGETABLES.

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(Continued from page 444.)

CABBAGE. *Brassica oleracea capitata* L.

THE headed cabbage, in its perfection of growth and its multitude of varieties, bears every evidence of being of ancient origin. It does not appear, however, to have been known to Dioscorides, or to Theophrastus, of the Greeks, nor to Cato, among the Romans; but a few centuries later their presence is indicated by Columella² and Pliny,³ who, in his "Tritianon" kind, speaks of the head being sometimes a foot in diameter, and going to seed the latest of all the sorts known to him. The descriptions are, however, obscure, and we may well believe that if the hard-headed varieties now known had been seen in Rome at this time they would have received mention. Olivier de Serres, quoted by A. Soyer,⁴ says, "White cabbages came from the north, and the art of making them head was unknown in the time of Charlemagne." Albertus Magnus,⁵ who lived in the thirteenth century, seems to refer to a headed cabbage in his "Caputium," but there is no description. The first unmistakable reference to a cabbage that I find is by Ruellius,⁶ in 1536, who calls them *capucos coles* or *cabutos*, describes the head as globular and often very large, even a foot and a half in diameter. Yet the word *cabaches* and *caboche*s used in England in the fourteenth century indicates the cabbage as then known and distinguished from *coles*.⁷ Ruellius also describes a loose-headed form called *Romanos*, and this name and description, when we consider the difficulty of heading cabbages in a warm climate, would lead us to believe that the Roman varieties were not our present solid-heading type, but loose-headed, and perhaps of the Savoy class.

Our present cabbages are divided by De Candolle⁸ into five types or races,—viz., the flat-headed, the round-headed, the egg-

¹ Director of the New York Agricultural Experiment Station, Geneva.² Columella, lib. x. l. 138.³ Pliny, lib. xix. c. 41.⁴ Soyer, Pantropheon, 61.⁵ Albertus Magnus, De Veg., lib. vii. c. 90.⁶ Ruellius, De Natura Stirpium, 1536, 477.⁷ The Forme of Cury, 1390, Warner's Antiq. Cul., 1791.⁸ A. P. De Candolle, Memoir, Lond. Hort. Soc. Trans., 1821.

shaped, the elliptic, and the conical. Within each class are many sub-varieties. In Vilmorin's standard work, "Les Plantes Potagères," 1883, fifty-seven kinds are described, and others mentioned by name. In the "Report of the New York Agricultural Experiment Station" for 1886, seventy varieties are described, excluding synonyms. In both cases the Savoy is treated as a separate class, and is not included. The history of these forms, as well as I can make out, will now be given.

The Flat-Headed Cabbage.—The type, the "Quintal." The first appearance of this form that I find is in "Pancovius Herbarium," 1673, No. 612. A "common flat-winter," probably this form, is mentioned by Wheeler,¹ 1763; the "flat-topped" is described by Mawe² in 1778. The varieties that are now esteemed are remarkably flat and solid.

The Round Cabbage.—The type, the "Early Dutch Drum-head." This appears to be the earliest form with which we are acquainted, as it is the only kind figured in our early botanies, and was hence presumably the only, or, perhaps, but the principal, sort known during several centuries. The following synonymy is taken from drawings only, and hence there can be no mistake in regard to the type:

Brassicæ quartum genus. Fuch., 1542, 416.

Kappiskraut. Roszlin, 1550, 87.

Caulis capitulatus. Tragus, 1552, 717.

Brassica capitata. Matth., 1558, 247; Pinæus, 1561, 163; Cam. Epit., 1586, 250.

Kol oder Kabiskraut. Pictorius, 1581, 90.

Brassica alba sessilis glomerata, aut capitata Lactucæ habitu. Lobel ic., 1591, i. 243.

Brassica capitata albida. Lugd., 1587, i. 521; Dod. Pempt., 1616, 623.

Brassica capuccia. Cast. Dur., 1617, 78.

Brassica capitata alba. Bodæus, 1644, 777; J. Bauhin, 1651, ii. 826; Chabræus, 1677, 269.

The descriptive synonymy includes the "losed" cabbage, a great round cabbage of Lyte's "Dodoens," 1586; the White cabbage cole of Gerarde, 1597; the White Cabbage of Ray, 1686; the chou pomme blanc of Tournefort, 1719; the English of Townsend, 1726; the Common white of Wheeler, 1763; the

¹ Wheeler, Bot. and Gard. Dict., 1763, 79.

² Mawe, Gard., 1778.

English, or late, of Stevenson, 1765; the Common round white of Mawe, 1778, etc.

The Egg-Shaped.—The type of the “Sugar-Loaf.” Vilmorin¹ remarks of this variety, the Sugar-Loaf, that, although a very old variety, and well known in every country in Europe, it does not appear to be extensively grown anywhere. It is called *chou chicon* in France,² and *bundee kobee* in India.² It is mentioned by name by Townsend,³ in 1726; by Wheeler,⁴ in 1763; by Stevenson,⁵ in 1765; by Mawe,⁶ in 1778, etc. Perhaps the large-sided cabbage of Worlidge⁷ and the long-sided cabbage of Quintyne⁸ belong to this division.

The Elliptic Cabbage.—The type is the “Early York.” This is first mentioned, so far as I can ascertain, by Stevenson⁵ in 1765, and he refers to it as if a well-known sort. According to Burr, it came originally from Flanders. There are now many varieties of this class.

The Conical Cabbage.—The type is the “Filderkraut.” This race is described by Lamarck⁹ in 1783, and, if there is any constancy between the name and the variety during long periods, is found in the *Battersea*, named by Townsend¹⁰ in 1726, and a whole line of succeeding writers.

It is certainly very singular that but one of these races of cabbage received the notice of the older botanists (excepting the one flat-topped given by Chabræus in 1677), as their characteristics are extremely well marked, and form extreme contrasts between the conical or pointed and the spherical headed. We must, hence, believe that they either originated or came into use within a recent period. How they came, and whence they came, must be decided from a special study, in which the effect of hybridization may become a special feature. From the study of sports that occasionally appear in the cabbage-garden, the suggestion may be offered that at least some of these races have been derived from crossings with some form of the Chinese cab-

¹ Vilmorin, *The Veg. Gard.*, 1885, 110.

² Speede, *Ind. Handb. of Gard.*, 1842, 112.

³ Townsend, *Seedsman*, 1726, 26.

⁴ Wheeler, *Bot. and Gard. Dict.*, 1765, 79.

⁵ Stevenson, *Gard. Kal.*, 1765, 119, 26.

⁶ Mawe, *Gard.*, 1778.

⁷ J. W., *Gent. Syst.-Hort.*, 1683, 202.

⁸ Quintyne, *Comp. Gard.*, 1693, 189.

⁹ Don, *Gard. Dict.*, 1831, i. 223.

¹⁰ Townsend, *Seedsman*.

bage, whereby form has become transferred while the characteristics of the Chinese species have disappeared. On the other hand, the Savoy class, believed to have origin from the same source as the cabbage, have oval or oblong heads, which have been noted by the herbalists.

The Cabbage is called, in France, *Choux cabus*, *chou capu*, *chou en tête*, *chou pomme*, *chou pomme à feuille lisse*; in Germany, *Kopfkohl*, *Kraut*; in Flanders, *kabuiscool*; in Holland, *slutkool*; in Denmark, *hoved kaal*; in Italy, *cavolo cappuccio*; in Spain, *col repollo*; in Portugal, *couve repolho*; ¹ in Sweden, *husvudkal*.²

The ancient names were, in France, *capucos coles*, or *cabutos*, Ruel., 1536; *chou cabus*, Lyte, 1586; in Germany, *Kappiskraut*, Adv., 1570; *Kapskraut*, Pin., 1561; in Italy, *cavolo cappuccio* and *cappuzzino*, Pin., 1561; in Spain, *repolho* and *colhes morcianos*, Pin., 1561.

CAPER. *Capparis spinosa* L.

The caper, although rarely grown in this country, forms an object of extensive culture in the Mediterranean region for the sake of the flower-buds, which enter into commerce for use as a pickle or appetizer. The Greeks of the Crimea eat the shoots as well as the buds,³ and in Egypt the fruit, which in this variety is very large, is eaten by the Arabs.⁴ In Sindh and the Panjab, India, the fruit is also pickled and eaten.⁵ According to Ruellius,⁶ Aristoteles and Theophrastus describe the plant as not cultivated in gardens; but in his time (1536) it was in the gardens of France. Unger⁷ says it was known to the ancient Greeks, and the renowned Phryne, at the first period of her residence in Athens, was a dealer in capers. The plant has become widely distributed, and was introduced into South Carolina about 1755.⁸

There are two forms now known,—the spined and the unarmed. The former is the most esteemed, although *C. inermis* is also grown in France. Both kinds have been known for a long time, as the following partial synonymy indicates:

¹ Vilmorin, Les Pl. Pot., 1883, 103.

² Tengborg, Hort. Culin., 1764, 23.

³ Pallas, Trav., iv. 224.

⁴ Wilkinson, Ancient Egyptians, ii. 29.

⁵ Brandis, Forest Flora, 14.

⁶ Ruellius, De Nat. Stirp., 1536, 561.

⁷ Unger, Plants used as Food by Man, U. S. Pat. of Rept., 1859.

⁸ Hist. of the Mass. Hort. Soc., 29.

I.

Capparia. Ruellius, 1536, 561.

C. spinosa, fructu minore, folio rotundo. Bauh., Pin., 1623, 480.

C. spinosa. J. Bauh., 1651, ii. 63.

C. spinosa. Linn., Sp., 720.

Caprier. Vil., 1883, 55.

Capers.

II.

Capparis non spinosa fructu majore. Bauhin, Pin., 1623, 480.

C. non spinosa. J. Bauhin, 1651, ii. 63; Tourn., Inst., 1719, 261.

C. inermis. Naud. & Decaisne, Man., iv.

Caprier, variété sans épines. Vilm., 1883, 55.

The Caper-tree is called, in France, *caprier*; in Germany, *Kapernstrauch*; in Flanders and Holland, *kapperboom*; in Italy, *cappero*; in Spain, *alcaparra*; in Portugal, *alcaparreira*.¹

In Arabic, *kabar*, or *kabbar*;² in Afghan, *kabaria*; in Thibet, *kabra*; in Panjab, *kaur*, *kiari*, *kakri*, *kandee*, *taker*, *ber*, *barari*, *bauri*, *bassar*; in Sindh, *kalvari*.³

CARAWAY. *Carum carui* L.

The seeds of caraway were found by O. Heer⁴ in the *débris* of the lake habitations of Switzerland, which establishes the antiquity in Europe. This fact renders it more probable that the *Careum* of Pliny⁵ is this plant, as also its use by Apicius⁶ would indicate. It is mentioned as cultivated in Morocco by Edrisi in the twelfth century; and in the Arab writings, quoted by Ibn Baytar, a Mauro-Spaniard of the thirteenth century, it is likewise named; and Fluckiger and Hanbury think the use of this spice commenced at about this period. It is not noticed by St. Isidore, Archbishop of Seville in the seventh century, although he notices dill, coriander, anise, and parsley; nor is it named by St. Hildegard in Germany in the twelfth century. But, on the other hand, two German medicine-books of the twelfth and thirteenth centuries use the word *cumich*, which is still the popular name in Southern Germany. In the same period the seeds appear to have been used by the Welsh physicians

¹ Vilmorin, Les Pl. Pot., 1883, 55.

² Delile, Fl. Ægypt, illust.

³ Brandis, Forest Flora, 14.

⁴ O. Heer, Gard. Chron., 1866, 1068.

⁵ Pliny, lib. xix. c. 49.

⁶ Apicius, lib. i. c. 30; ii. c. 4; viii. c. 2.

of Myddvai, and caraway was certainly in use in England at the close of the fourteenth century,¹ and is named in Turner's "Libellus," 1538, as also in "The Forme of Cury," 1390.

Caraway appears as a wild plant in Iceland, Scandinavia, Finland, Arctic, Central, and Southern Russia, Persia, and in Siberia; also Eastern France, Spain, Central Europe, America, and the Caucasus, as well as in the Western Himalayas. It is largely cultivated in a distinct variety in Morocco. In commerce the seed is received from Finmark, Finland, and Russia, Prussia, Holland, and Morocco.

This plant is cultivated in gardens for its under leaves, which are used for flavoring soups and salads, and for its seeds, which are often mixed with bread, or in making "seed-cakes," and in Germany are put into certain cheeses. The root is tender, and is better than a parsnip, as was observed by Parkinson and Ray; and Vilmorin, in 1883, says it can be so used, but this use now is probably very infrequent.

Caraway is called, in France, *carvi*, *anis des Vosges*, *cumin des pres*; in Germany, *Kummel*; in Holland, *karvii*; in Denmark, *kommen*; in Italy, *carvi*; in Spain, *carvi*, *alcaravea*; in Portugal, *alcaravia*; ² in Arabic, *karaoweh*,³ or *curweeya*.⁴

CARDOON. *Cynara cardunculus* L.

The cardoon is indigenous in the Mediterranean region, but has become naturalized elsewhere, as in Banda Oriental, where several hundred square miles have become covered by one mass of these prickly plants, and are impenetrable by man or beast.⁵ The cultivated plant is little grown in England or in America, but in France, Italy, and generally in Europe the stalks and inner leaves, rendered white and tender by blanching, are in esteem. To the ancient Romans it was well known and cultivated for the footstalks, as at present.⁶ Pliny⁷ complains of the great price that monstrous-grown specimens brought at Rome, and that especially fine varieties came from Carthago and Corduba, in Spain. In more recent times, Ruellius,⁸ in 1536, speaks of the use of the herb as a food, after the manner of

¹ Pharmacographia, 1879, 304.

² Vilmorin, Les Pl. Pot., 72.

³ Delile, Fl. Ægypt, illust.

⁴ Birdwood, Veg. Prod. of Bombay, 39, 237.

⁵ Darwin, Voy. of a Nat., i. 153.

⁶ Targioni-Tozzetti, Hort. Trans., 1854, 142.

⁷ Pliny, lib. xix. c. 43.

⁸ Ruellius, De Nat. Stirp., 1536, 643.

asparagus. Matthioli¹, in 1558, says there are many varieties in the gardens which are commonly called *Cardoni* by the Hetruscans, and that, diligently cultivated, these are tender, crisp, and white, and are eaten with salt and pepper. In 1623 Bauhin² calls the plant *Cinara spinosa, cujus pediculi esitantur*.

Vilmorin³ describes five varieties,—the *Cardon de Tours*, the *Cardon plein inerme*, the *Cardon d’Espagne*, the *Cardon Puvis*, and the *Cardon à cotes rouges*.

The first of these, the *Cardon de Tours*, is very spiny, and we may reasonably believe it to be the sort figured by Matthioli⁴ in 1598, under the name of *Carduus aculeatus*. It is named in French works on gardening in 1824, 1826, 1829, etc.⁵ Its English name is *Prickly Solid Cardoon*; in Spain it is called *Cardo espinoso*. It holds the first estimation with the market-gardeners of Tours and Paris.

The *Cardon plein inerme* is scarcely spiny, is a little larger than the preceding, but otherwise closely resembling. J. Bauhin⁶ had never seen spineless cardoons. It is spoken of in 1824, in French books on gardening. It is called, in English, *Smooth-Solid Cardoon*, and has also names in Germany, Italy, and Spain.

The *Cardon d’Espagne* is very large and not spiny, and is principally grown in the southern portions of Europe. We may reasonably speculate that this is the sort named by Pliny as coming from Corduba. “Cardons d’Espagne” have their cultivation described in “Le Jardinier Solitaire,” 1612. A “Spanish cardoon” is described by Townsend⁷ in England in 1726, and the same name is used by McMahon⁸ in America in 1806. It is the *Cynara integrifolia* of Vahl.

The *Cardon Puvis*, or *Artichoke-leaved*, is spineless, and is grown largely in the vicinity of Lyons, France. It finds mention in the French books on gardening of 1824, 1829, etc., as previously enumerated.

The *Cardon à cotes rouges*, or *Red-stemmed*, is so named from having the ribs tinged with red. It is called a recent sort by Burr in 1863.

¹ Matthioli, Com., 1558, 322.

² Bauhin, Pin., 1623, 383.

³ Vilmorin, Les Pl. Pot., 1883, 59.

⁴ Matthioli, Op., 1598, 496.

⁵ L’Hort, Fran., 1824; Petit, Dict. du Jard., 1826; Noiset, Man., 1829.

⁶ J. Bauhin, Hist., 1651, 50.

⁷ Townsend, Seedsman, 1726, 29.

⁸ McMahon, Am. Gard. Kal., 1806.

From a botanical point of view we have two types in these plants,—the armed and the unarmed; but these characters are by no means to be considered as very constant, as in the Smooth-Solid we have an intermediate form. In an olericultural point of view we have but one type throughout, but a greater or less perfection. A greater acquaintance with the wild forms would, doubtless, show to us the prototypes of the variety differences as existing in nature.

The cardoon is called, in France, *cardon*, *cardonette*, *chardonnerette*, *chardonnette*; in Germany, *Cardy*, *Carde*; in Flanders, *kardoën*, *cardonzen*; in Denmark, *kardon*; in Italy, Spain, and Portugal, *cardo*.

CARROT. *Daucus carota* L.

The carrot and the parsnip, if known to them, seem to have been confounded in the descriptions by the ancients, and we find little evidence that the cultivated carrot was known to the Greek writers, to whom the wild carrot was certainly known.¹ The ancient writers usually gave prominence to the medical efficacy of herbs; and if our supposition be correct that their carrots were of the wild form, we have evidence of the existence of the yellow and red roots in nature, the prototypes of these colors now found in our cultivated varieties. Pliny,² who was a naturalist, says they cultivate a plant in Syria like *staphylinos*, the wild (?) carrot, which some call *gingidium*, yet more slender and more bitter, and of the same properties, which is eaten cooked or raw, and is of great service as a stomachic; also a fourth kind, resembling a *pastinaca* somewhat, called by us *Gallicam*, but by the Greeks *daucon*. This comparison with a parsnip and the name is suggestive of the cultivated carrot. Galen, a Greek physician of the second century, implies cultivation of the carrot when he says the root of the wild carrot is less fit to be eaten than that of the domestic.³ In the thirteenth century, however, Albertus Magnus (lib. vii. tract. ii. cap. 1-4) treats of the plants under field culture, garden culture, orchard culture, and vineyard culture, and yet, while naming the parsnip, makes no mention of the carrot,—if the word *pastinaca* really means the parsnip. I am willing to believe, however, that the *pastinaca* of Albertus

¹ Theophrastus, Bodæus a Stapel, ed. 1644, 1119, 1122.

² Pliny, lib. xx. c. 16; lib. xix. c. 27. ³ Matth., Op., 1598, 570.

Magnus is the *carrot*, for in the sixteenth century Ammonius¹ gives the name for the carrot *pastenei*, as applying to *Pastinaca sativa* and *agrestis*. Barbarus, who died in 1493, and Virgelius² both describe the carrot under the name *Pastinaca*; and Apicius,³ a writer on cookery in the third century, gives directions for preparing the *Carota seu pastinaca*, which can only apply to the *carrot*. Dioscorides² uses the word *Carota* as applying to the *Pastinaca silvestris* in the first century. Columella⁴ and Palladius⁵ both mention the *pastinaca* as garden plants, but say nothing but what can better apply to the carrot than the parsnip. Macer Floridus⁶ also treats of what may be the *carrot* under *Pastinaca*, and says no roots afford better food.

We hence believe that the carrot was cultivated by the ancients, but was not a very general food-plant, and did not attain the modern appreciation; that the word *pastinaca*, or *cariotam*, or *carota*, in these times was applied to both the cultivated and the wild form; and we suspect that the word *Gallicam*, used by Pliny in the first century, indicates that the cultivated root reached Italy from France, where now it is in such exaggerated esteem.

The *Sisaron* of Dioscorides and the *Siser* of Columella and Pliny may have been a form of the carrot, but we can attain no certainty from the descriptions. The fact that the grouping of the roots which occurs in the *Skirret*, into which authors translate *Siser*, is not mentioned by the ancients,—a distinction almost too important to be overlooked,—and that the short carrot was called *Siser* by botanists of the sixteenth century, are arguments in favor of the *Siser* being a carrot. On the other hand, we should scarcely expect a distinction being made between *Pastinaca* and *Siser*, were both as resembling in the plant as are the two forms of carrot at present.

The carrot is now found under cultivation and as an escape throughout a large portion of the world. In China it is noticed in the Yuan dynasty, as brought from Western Asia, 1280–1368,⁷ and is classed as a kitchen vegetable in the sixteenth, seven-

¹ Ammonius, Med. Herb., 1539, 186.

² In Ruellius's Dioscorides, 1529, 174.

³ Apicius, lib. iii. c. 21.

⁴ Columella, lib. xi. c. 3.

⁵ Palladius, lib. c. 24.

⁶ Macer Floridus, De Viribus Herb., l. 1284, Sillig ed., 1832; Æmelius Macer, Pictorius ed., 1581, 95, but a parsnip figured by Pictorius.

⁷ Bretschneider, On the Study, etc., 17.

teenth, and eighteenth centuries by various Chinese authors.¹ In India the carrot is said to have first come from Persia, and now cultivated in abundance in the Mahratta and Mysore countries.² The carrot is enumerated among the edible plants of Japan by Thunberg,³ and earlier by Kaempfer.⁴ The kind now described by a Japanese authority⁵ are an inch and a half in diameter at the crown and nearly two feet and a half long, of a high color. It is now cultivated in the Mauritius, where it has also become spontaneous.⁶ It is recorded in Arabia by Forskål,⁷ and was seen growing—both the yellow and the red—by Rauwolf at Aleppo in the sixteenth century.⁸ In Europe its culture was mentioned by nearly all the ancient herbalists and by writers on gardening subjects, the red or purple kind finding mention by Ruellius⁹ in 1536. In England the yellow and dark red, both long forms, are noticed by Gerarde¹⁰ in 1597, and the species is supposed to have been introduced by the Dutch in 1558.¹¹ In the "Surveyors' Dialogue," 1604, it is stated that carrot-roots are then grown in England, and sometimes by farmers.¹² In the New World carrots are mentioned at Margarita Island by Hawkins in 1565¹³ (and this implies that they were well known in England at this date); are mentioned in Brazil by Nieuhoff in 1647;¹⁴ in Virginia in 1609¹⁵ and 1648;¹⁶ and in Massachusetts in 1629.¹⁷ In 1779 carrots were among the Indian foods destroyed by General Sullivan near Geneva, N. Y.¹⁸ So fond of carrots are the Flathead Indians, of Oregon, that the children cannot forbear stealing them from the fields, although honest as regards other articles.¹⁹

The types of the modern carrot are the tap-rooted and the premorse-rooted, with quite a number of sub-types, which are

¹ Bretschneider, Bot. Sin., 59, 83, 85; also Smith, Mat. Med., 51.

² Ainslie, Mat. Med., i. 57.

³ Thunberg, Fl. Jap., xxxiii. 117.

⁴ Kaempfer, Amoen., 1712, 822.

⁵ Kizo Tamari, Comm. to New Orleans Expos., Am. Hort., September, 1886, 9.

⁶ Bojer, Hort. Maur., 160.

⁷ Forskål, Fl. Æg.-Arab., xciii.

⁸ Gronovius, Orient., 32.

⁹ Ruellius, De Nat. Stirp., 1536, 699.

¹⁰ Gerarde, Herbal, 1597, 872.

¹¹ Booth, Treas. of Bot.

¹² Gard. Chron., 1853, 346.

¹³ Hawkins, Voy. Hak. Soc., ed. 27.

¹⁴ Nieuhoff, Hak. Voy.

¹⁵ A True Decl. of Va., 1610, 13.

¹⁶ A Perf. Descr. of Va., 1649, 4.

¹⁷ Higginson, Mass. Hist. Soc. Coll., 1st ser., i. 118; Wood, New Eng. Prosp., 1st ed., ii.

¹⁸ Conover, Early Hist. of Geneva, 47.

¹⁹ Pacific R. R. Rept., i. 295.

very distinct in appearance. The synonymy in part is as below. First, for the sharp-pointed forms, which are ancient,—

I. *The long, taper-pointed forms.*

Pastinaca sativa prima. Fuch., 1542, 682 (very little improved).

Moren. Roszlin, 1550, 106.

Staphylinus. Tragus, 1552, 442.

Carota. Cam. Epit., 1586, 509 (very highly improved); Matth., 1598, 549.

Pastinaca sativa Diosc. Daucus Theophrasti. Lob. ic., 1591, i. 720.

Pastinaca sativa atrorubens. Lob. ic., l. c., 723.

Pastinaca sativa tenuifolia. Ger., 1597, 872.

Pastinaca tenuifolia sativa. Dod., 1616, 678.

Pastinaca sativa rubens. Dod., 1616, 678.

Long yellows, reds, and whites of modern growing.

II. *The half-long, taper-pointed forms.*

? *Pastinaca sativa altera.* Fuch., 1542, 683 (very poor).

Siser. Matth. Com., 1558, 242; Pin., 1561, 147.

Siser alterum. Cam. Epit., 1586, 227.

Carota. Cast. Dur., 1617, 95.

Blanche des Vosges. Vilmorin, 1883, 70.

Danvers half-long of American gardens.

The premorse forms offer a number of sub-types which are very distinct, some being nearly spherical, others cylindrical, and yet others tapering, but all ending abruptly at the base, the tap-root starting from a flat, or nearly flat, surface. Their appearance seems to be modern.

I. *The spherical.* The earliest mention I find of this type is in France in 1824, 1826, and 1829,—the *Courte de Pollande*.¹ It is figured by Decaisne & Naudin,² and, in a more improved form, by Vilmorin in 1883.³

II. *The cylindrical.* The carrots of this type are remarkably distinct, and have for types the Carentan and the Coreless of Vilmorin. The first was in American seed-catalogues in 1878.

III. *The tapering.* Quite a number of varieties belong to this class, of which the Early Horn is the type. This was mentioned for American gardens by McMahon⁴ in 1806, and by succeeding authors.

¹ L'Hort. Fran., 1824; Petit, Dict. du Jard., 1826; Noisette, Man., 1829.

² Decaisne & Naudin, Man., iv. 125. ³ Vilmorin, Les Pl. Pot., 1883, 62.

⁴ McMahon, Am. Gard. Cal., 1806, 313.

In view of the confusion in early times in the naming of the carrot, it is desirable to offer a list of the names used by various authors, with the dates. The first, or long carrot, was called, in England, *carrot*, Lyte, 1586; in France, *carota*, Ruel., 1536, *carottes*, *pastenades*, Pin., 1561, *pastenaide jaulne*, *pastenade rouge*, Lyte, 1586, *carotte*, *racine jaulne*, Ger., 1597; in Germany, *Pastenei*, Ammon., 1539, *Pastiney*, *Pastinachen*, Fuch., 1542, *geel Ruben*, *rohete Ruben*, *weissen Ruben*, Trag., 1552, *Mohren*, Rosz., 1550, *Moren*, Pin., 1561, *gelbe Ruben*, *weissen Ruben*, Rauwolf, 1582, *rot Mohren*, *weisse Mohren*, Cam., 1586; in Dutch, *geel peen*, *pooten*, *geel mostilen*, *caroten*, Lyte, 1586; in Italy, *carota*, Pin., 1561, *carota* and *carotola*, Cam., 1586, *pastinaca*, Ger., 1597, Dod., 1616; in Spain, *canahoria*, Ger., 1597, and *paste-nagues*, *cenoura*, Dod., 1616.

The half-long, taper-pointed carrot was called *Siser* by Matthioli in 1558; in French, *carottes blanche*, Pin., 1561; but his other names applicable to the Skirret are the *chervy*, *giroles* aut *carottes blanches*, Cam. Epit., 1586; in Germany, *Gierlin* sive *Girgellin*, Cam., 1586; in Italy, *carota bianca*, Cam., 1586, *carotta*, *carocola*, Cast. Dur., 1617; in Spain, *chirivias*, Cam., 1586, who says planted in gardens and even in fields throughout Germany and Bohemia.

The modern names for the carrot, in Europe, are, in France, *carotte*, *faux-chervis*, *girouille*, *pastenade*; in Germany, *Mohre*, *Gelbrube*, *Carotte*; in Flanders, *wortel*; in Holland, *wortel*, *peen*; in Denmark, *guleroden*; in Italy, *carota*; in Spain, *zanahoria*; in Portugal, *cenoura*; ¹ in Greece, *karotta*, or *staphulona*.²

In extra-European countries: in Arabic, *gezar*,³ *istufleen*, *juzir-ul-bostanee*; in Bengali, *gajar*; in Egypt, *djazar*; in India, *gager*;⁴ in Japan, *kofuk*, vulgo *nisji* et *jabu nensin*;⁵ in Persia, *zardak*; in Sanscrit, *grinjuna*, *canjara*; in Telugu, *gazeragedda*.

The various forms of the carrot have probably their prototypes in nature, but as yet the evidence is a little deficient. We may suspect the general resemblance of the *Altringham* to the Japanese variety already mentioned may be somewhat more than accidental, and to signify the original introduction of this variety from Japan. We have, in the attempts at amelioration, noted

¹ Vilmorin, l. c., 60.

² Pickering, Ch. Hist., 190.

³ Delile, Fl. Egypt, illust.

⁴ Birdwood, Veg. Prod. of Bomb., 162.

⁵ Kaempfer, Amoen., 1712, 822; Thunb., Jap., 117.

the appearance of forms of similar types as those under cultivation.¹ The presumptive evidence is in favor of the view that all cultivated types are removes from nature, not new originations by man; yet the proof is not as decisive as could be wished.²

(To be continued.)

REVIEW OF THE PROGRESS OF NORTH AMERICAN PALÆONTOLOGY FOR THE YEAR 1886.

BY JOHN BELKNAP MARCOU.

THE year which has just passed has been fairly prolific in palæontologic works and promises well for the future of American palæontology. With the exception of the death of the veteran palæontologist and conchologist, Isaac Lea, of Philadelphia, we have to deplore the loss of no eminent workers in this branch of science.

I have extended this review so as to include the vertebrates, which I had not touched in my similar work for previous years, and, although my slighter acquaintance with the subject has made it much more difficult for me to get the material together, I trust that it will be found a welcome addition by those interested in this branch of the science.

T. H. Aldrich publishes a "Preliminary Report upon the Tertiary Fossils of Alabama and Mississippi" in the *Geol. Sur. Alabama*, Bull. No. 1, p. 18. In the *Four. Cincinnati Soc. Nat. His.*, vol. viii. p. 256, he has "Notes on the Distribution of Tertiary Fossils in Alabama and Mississippi."

J. A. Allen has an article "On an Extinct Type of Dog from Ely Cave, Lee County, Va.," in the *Mem. Mus. Comp. Zool.*, at Harvard College, vol. x. p. 1. Professor Shaler appends a note, from which one would infer that he considers the remains described to be of Pliocene age.

H. M. Ami, in the *Canad. Rec. Sci.*, vol. ii. p. 304, has a note "On the Occurrence of *Scolithus* in Rocks of the Chazy Formation about Ottawa, Ontario."

Charles A. Ashburner and Angelo Heilprin have, in the *Proc.*

¹ Joigneaux, *Traite des Graines*, 44.

² See *Proc. of Soc. for P. of Agr. Sc.*, 1886, p. 68, for an article of mine on this subject.